RINGKASAN

Jamur merang (*Volvariella volvacea* (Bull. ex Fr.) Sing) merupakan salah satu jamur pangan yang mempunyai nilai gizi tinggi. Budidaya *V.volvacea* bisa dilakukan pada medium pertumbuhan yang mengandung selulosa dan hemiselulosa seperti jerami padi dan limbah kapas. Penggunaan medium campuran dari jerami padi dan limbah kapas serta adanya penambahan pupuk NPK mampu meningkatkan produksi jamur merang. Tujuan penelitian ini adalah untuk mengetahui pengaruh interaksi antara medium tanam dengan pupuk NPK serta mengetahui perbandingan campuran medium tanam dan dosis pupuk NPK yang paling baik terhadap produksi jamur merang.

Metode yang digunakan adalah eksperimental dengan Rancangan Acak Lengkap (RAL) pola faktorial 3 x 4 dengan tiga ulangan sehingga diperoleh 36 unit percobaan. Parameter utama yang diamati yaitu bobot basah jamur merang total (g) selama 14 hari masa produksi, sedangkan parameter pendukung yaitu rasio C/N medium tanam, suhu medium, pH medium, suhu dan kelembapan ruangan, dan ukuran tubuh buah jamur.

Hasil uji *Analysis of Variance* (ANOVA) pada tingkat kepercayaan 95% menunjukkan bahwa perlakuan kombinasi formula medium tanam dan pupuk NPK berpengaruh nyata terhadap produksi rata – rata *V.volvacea* dengan hasil produksi tertinggi yang diperoleh pada formula medium tanam campuran jerami dan kapas dengan perbandingan 1:1 serta penambahan pupuk NPK sebanyak 1% dengan produksi rata – rata sebanyak 869,3 g/bedengan.

Kata kunci : *V. volvacea,* jerami padi, limbah kapas, pupuk NPK.

SUMMARY

Paddy Straw Mushroom (*Volvariella volvacea* (Bull. Ex Fr.) Sing) is one of the edible mushrooms that have a high nutritional value. *V.volvacea* cultivation can be done in a growth medium containing cellulose and hemicellulose such as rice straw and cotton waste. The medium mixture used of rice straw and cotton waste as well as the addition of NPK fertilizer to increase the production of edible mushroom. The purpose of this research was to determine the effect of interaction between the planting medium with NPK fertilizer as well as determine the ratio of planting medium and dose of NPK best for mushroom production.

This reasearch used experimental method completely randomized design (CRD) 3 x 4 factorial design with three replications thus obtained 36 experimental units. The main parameter was mushroom total fresh weight (g) for 14 days of production, whereas the supporting parameters were C / N ratio of compost medium, medium temperature, medium pH, temperature and humidity of the room, the size of the fruit bodies.

The test results Analysis of Variance (ANOVA) at the level of accuracy 95% indicate that the treatment combination of composition of planting medium and NPK fertilizer production significantly affect the average of *V.volvacea* with the highest production on the composition of planting medium with a mixture of straw and cotton a ratio of 1: 1 as well as the addition of NPK fertilizer production as much as 1% with the average as much as 869.3 g / beds.

Keywords: *V. volvacea*, rice straw, cotton waste, fertilizer NPK.